#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

## WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-024054 Address: 333 Burma Road **Date Inspected:** 28-May-2011

City: Oakland, CA 94607

**OSM Arrival Time:** 1900 **Project Name:** SAS Superstructure **OSM Departure Time:** 700 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name:** See below **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No **Weld Procedures Followed:** Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes N/A **Delayed / Cancelled:** No

34-0006 **Bridge No: Component:** OBG

### **Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, Kelly Leavitt, was present during the times noted above for random observations relative to the work being performed.

#### Trial Assembly

This QA inspector performed MT of approximately 15% of an area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. This QA Inspector generated an MT report for this date. The member was identified as OBG13AW and OBE13AE. The weld designations reviewed are as follows:

SEG3009L-025,026,028,029,031,032,034,035,037, 038,039,011,141,012,040,046,048,041,140

SEG3007Y-461,326,319,328,320,327,331,358,360, 362,364,366,368, 370,372,374,376,325,324,333

SEG3007AE-017,018,037,038,097,098,019,020,099,100,039,040

SEG3007AH-084,022,023,024,036,037,038,039,066,067,068,069,053,054,055,056,163,164,165,087, 094,095,

096,097,114,115,116,117,104,105,106,107

FB3124-001-029,030,033,034

This QA Inspector observed the following work in progress for Trial Assembly.

ZPMC was using the Shielded Metal Arc Welding (SMAW) process.

ZPMC QC is identified as Zhong Lin.

Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specification (WPS). Listed below are the locations that were identified by this QA inspector.

Components; OBG 14W



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PCMK: SEG3020D

Weld No: 001,002,305,306,307,308

Welder: 068917

WPS-B-P-2114-FCM-1

Components; OBG 13AW PCMK: SEG3013AH

Weld No: 032 Welder: 066673

WPS-B-P-2212-TC-U4b-2114-FCM-1

Components; OBG 13AW

PCMK: AH3001 Weld No: 092,093 Welder: 070009

WPS-B-P-2114-FCM-1

This QA Inspector observed the following work in progress for Trial Assembly.

ZPMC was using the Shielded Metal Arc Welding (SMAW) process.

ZPMC QC is identified as Zhen Hal Fong.

Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specification (WPS).

Listed below are the locations that were identified by this QA inspector.

Components; OBG 14E PCMK: SEG3019AH

Weld No: 003 Welder: 215553

Repair No. B-WR21107

WPS-345-SMAW-2G(2F)-FMC-Repair-1

Components; OBG 14E PCMK: SEG3019W Weld No: 014,139 Welder: 216086

WPS-B-P-2214-TC-U4b-FCM-1

Components; OBG 13CE

PCMK: DP3108-001

Weld No: 036 Welder: 051359

WPS-B-P-2113-FCM-1

Components; OBG 13CE PCMK: DP3109-001



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Weld No: 036 Welder: 051359

WPS-B-P-2113-FCM-1

Components; OBG 13BE

PCMK: SEG3009J Weld No: 036 Welder: 058102

WPS-B-P-2214-TC-U4b-FCM-1

Components; OBG 13BE

PCMK: SEG3009G Weld No: 004

Welder: 058102

WPS-B-P-2214-TC-U4b-FCM-1

This QA Inspector observed the following work in progress for Trial Assembly.

ZPMC was using the Flux Core Arc Welding (FCAW) process.

ZPMC QC is identified as Zhen Hal Fong.

Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specification (WPS).

Listed below are the locations that were identified by this QA inspector.

Components; OBG 14E PCMK: SEG3019BB Weld No: 078,100 Welder: 055491

Weld Repair No. B-WR20764

WPS-345-FCAW-3G(3F)-ESAB-Repair-1

Components; OBG 14E PCMK: SA3036-001~006

Weld No: 005,008 Welder: 069866

WPS-FCAW-2231-ESAB

This QA Inspector observed the following work in progress for Trial Assembly.

ZPMC was using the Shielded Metal Arc Welding (SMAW) process.

ZPMC QC is identified as Wang Xiang Pin.

Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specification (WPS).

Listed below are the locations that were identified by this QA inspector.

Components; OBG 13CW

PCMK: SEG3015B Weld No: 271



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Welder: 037998

WPS-B-P-2214-TC-U4b-FCM-1

Components; OBG 14W PCMK: SEG3020AW

Weld No: 086 Welder: 037998

WPS-B-P-2214-TC-U4b-FCM-1

Components; OBG 13CW

PCMK: VP3014-001

Weld No: 042 Welder: 067829

WPS-B-P-2214-TC-U4b-FCM-1

Components; OBG 13CW

PCMK: VP3015-001

Weld No: 011 Welder: 067829

WPS-B-P-2214-TC-U4b-FCM-1

Components; OBG 13CW

PCMK: VP3018-001

Weld No: 003 Welder: 067570

WPS-B-P-2214-TC-U4b-FCM-1

Components; OBG 13CW

PCMK: VP3019-001

Weld No: 008 Welder: 067570

WPS-B-P-2214-TC-U4b-FCM-1

Components; OBG 14E

PCMK: OBW13B Weld No: 005 Welder: 066398

Repair No. B-WR21077

WPS-345-SMAW-3G(3F)-FMC-Repair-1

Components; OBG 13AE

PCMK: SEG3007C Weld No: 214 Welder: 044772

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Repair No. B-WR20983

WPS-345-SMAW-3G(3F)-FMC-Repair-1

Components; OBG 13AE PCMK: VP3002-001 Weld No: 001,004 Welder: 044772

Repair No. B-WR20983

WPS-345-SMAW-2G(2F)-FMC-Repair-1

Components; OBG 13AE

PCMK: OBE12AD Weld No: 001 Welder: 044772

Repair No. B-WR21119

WPS-345-SMAW-3G(3F)-FMC-Repair-1

This QA Inspector observed the following work in progress for Trial Assembly.

ZPMC was using the Flux Core Arc Welding (FCAW) process.

ZPMC QC is identified as Wang Xiang Pin.

Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specification (WPS).

Listed below are the locations that were identified by this QA inspector.

Components; OBG 13AW

PCMK: KP3014-001

Weld No: 003 Welder: 067876

WPS-B-T-2232-TC-U4B-FCM-1

Components; OBG 13AW

PCMK: KP3016-001 Weld No: 004,006 Welder: 067876

WPS-B-T-2232-TC-U4B-FCM-1

Components; OBG 13AW

PCMK: KP3017-001

Weld No: 003 Welder: 067876

WPS-B-T-2232-TC-U4B-FCM-1

Components; OBG 13AW

PCMK: KP3018-001 Weld No: 003,005

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Welder: 067876

WPS-B-T-2232-TC-U4B-FCM-1

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

### **Summary of Conversations:**

"No relevant conversations."

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact James Devey 1500026784, who represents the Office of Structural Materials for your project.

Inspected By:	Leavitt,Kelly	Quality Assurance Inspector
Reviewed By:	Riley,Ken	QA Reviewer